UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/695,869	10/26/2000	Taichi Shino	2000 1452A	2975

7590 10/23/2002

Wenderoth Lind & Ponack LLP
2033 K Street NW Suite 800
Washington, DC 20006

EXAMINER
NGUYEN, CHANH DUY

ART UNIT	PAPER NUMBER
2675	6

DATE MAILED: 10/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/695,869	SHINO ET AL.	
	Examiner	Art Unit	
	Chanh Nguyen	2675	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 December 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Preliminary Amendment

1. The preliminary amendment filed on December 04, 200 has been entered and considered by examiner.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Obvious Type Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8 of U.S. Patent No. 6,320,326 in view of Yamada (U.S. Patent No. 6,275,203). Claims 1-8 of the U.S. Patent No. 6,320,326 discloses an alternate current plasma display panel as recited in claims 1-15 of the instant application with exception of describing the use of "reverse of a polarity". For example, the limitations display electrodes and conductor recited in claims 1 and 10 of the application reads on two pairs of scan and sustain electrodes as recited in claims 1-8 of the U.S. Patent No. 6,320,326. That is first pair of scan and sustain electrodes read on the display electrodes, and either scan or sustain electrode of the second pair reads on the conductor recited in claims 1 and 10 of the application. Yamada teaches the voltages applied to the scan electrodes and sustain electrodes being opposite polarity; see figure 6 and column 10, lines 15-60. Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have used the voltages applied to scan and sustain electrodes with opposite polarity as taught by Yamada to the U.S. Patent No.6,320,326 so that an electromagnetic noise generated in the electrodes can be canceled by another.

the claims Both

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claim 10 is rejected under 35 U.S.C. 102(e) as being anticipated by Kanazawa et al (U.S. Patent No. 6,288,692).

As to claim10, Kanazawa discloses an alternate current plasma display panel including a first insulating substrate being transparent (i.e., front glass substrate), a plurality of display electrodes (51, 52o) disposed over the first insulating substrate (front glass), each display electrodes including a scan electrode (51) and a sustain electrode (52o) and being arranged in a stripe shape; see figure 13 and 14. Kanazawa teaches a well-known figure 3 to have the electrodes covered with a dielectric layer (24) or a dielectric layer disposed over the first insulating substrate and covering the display electrode as recited in claim.

Kanazawa teaches a second insulating substrate (rear glass substrate) facing to the first insulating substrate (front glass substrate) to form a discharge space, a plurality of data electrodes (53) disposed over the second insulating substrate (rear glass substrate) and orthogonally to the display electrodes (51

and 52o); see figure 13 and 14. Kanazawa teaches at least one conductor (52e) disposed over the first substrate (front glass substrate) approximately parallel with the display electrodes (51 and 52o), wherein each the conductor (52e) coupled to the scan electrode (i.e. electrode 52e coupled to scan electrode via pixel 56 as shown in figure 13).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanazawa in view of Yamada (U.S. Patent No. 6,275,203).

As to claim 1, note the discussion of Kanazawa above, Kanazawa discloses an alternate current plasma display panel as recited in claim 1 with exception of describing the limitation "reverse of a polarity". For example, Kanazawa teaches a first and second insulating substrates being transparent (i.e., front glass substrate and rear glass substrate), a plurality of display electrodes (51, 52o) disposed over the first insulating substrate (front glass substrate), each display electrodes including a scan electrode (51) and a sustain electrode (52o); see figure 13 and 14. Kanazawa teaches at least one conductor (52e) disposed over the first substrate (front glass substrate)

approximately parallel with the display electrodes (51 and 52o), wherein each the conductor (52e) adjoining a respective one of the display electrodes (i.e. electrode 52e coupled to scan electrode 51 via pixel 56 as shown in figure 13). Kanazawa teaches display electrodes (51, 52o) arranged in rows; see figure 13. Yamada teaches the voltages applied to the scan electrodes and sustain electrodes being opposite polarity; see figures 6, 19-20 and column 10, lines 15-60. Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have used the voltages applied to scan and sustain electrodes with opposite polarity as taught by Yamada to the driving circuit of Kanazawa so that an electromagnetic noise generated in the electrodes can be canceled by another.

col. 11, lin 27-31

As to claims 2-3 and 5, Kanazawa teaches each of conductors (52e) coupled to scan electrode (51) as recited in claim 2 or display electrode (51) as recited in claims 3 and 5.

As to claims 4 and 6, the claimed reverse to an arrangement order of a conductor and a display electrode is broad enough to read on electrode (52e) coupled the display electrode (52o) through cell (57) and display electrode (51) coupled to the electrode (52e) through cell (56).

10. Claims 11-12 and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanazawa in view of Matsuzaki et al (U.S. Patent No. 5,939,828).

As to claim 11, note the discussion of Kanazawa above, Kanazawa teaches the display electrodes (51 and 52o) approximately parallel to the conductor (52e) as shown in figure 13, but does not mention a barrier disposed over dielectric layer between the display electrodes. Matsuzaki teaches a barrier (110) formed disposed over dielectric layer (8) between display electrodes (6) ; see figure 25. Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have used a barrier as taught by Matsuzaki to the plasma display panel of Kanazawa so as to simplify steps for forming barrier ribs and to suppress ion damage on a fluorescent layer; see column 4 ,lines 3-15 of Matsuzaki.

As to claim 12, photo-absoptive material barrier is well-known in the art and taught by Matsuzaki on column 18, lines 31-68.

As to claims 14-15, Kanazawa clearly teaches each conductor (52e) being coupled between a respective on of the sustain electrodes (52e) and a driving circuit (62) as broad claimed language.

11. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanazawa in view of Moon (U.S. Patent No 6,344,841) or Shino (U.S. Patent No. 6,320,326).

As to claim 13, note the discussion of Kanazawa above, Kanakawa does not mention a reverse current direction between the conductor and the display electrodes. Moon teaches each of conductors arranged on the plasma display panel having a current running in reverse direction to each other; see figure 9

and column 7, line 49 through column 8, line 27. Shinno's device teaches similar feature of current running in reverse direction applied to each of conductors arranged on the display panel. Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have applied a current in reverse direction to the electrodes of Moon or Shino to the electrodes of Kanazawa so as to reduce a current amount into less than 1/2 in comparison to the conventional PDP driving apparatus and reduce an electromagnetic interference ; see column 8, lines 18-27 of Moon.

12. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanazawa in view of Yamada as applied to claim1 above, and further in view of Matsuzaki et al.

As to claim 7, note the discussion of Kanazawa and Yamada above, Kanazawa teaches the display electrodes (51 and 52o) approximately parallel to the conductor (52e) as shown in figure 13, but does not mention a barrier disposed over dielectric layer between the display electrodes. Matsuzaki teaches a barrier (110) formed disposed over dielectric layer (8) between display electrodes (6) ; see figure 25. Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have used a barrier as taught by Matsuzaki to the plasma display panel of Kanazawa as modified by Yamada so as to simplify steps for forming barrier ribs and to suppress ion damage on a fluorescent layer; see column 4 ,lines 3-15 of Matsuzaki.

As to claim 12, photo-absoptive material barrier is well-known in the art and taught by Matsuzaki on column 18, lines 31-68.

13. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanazawa in view of Yamada as applied to claim 1 above, and further in view of Moon (U.S. Patent No 6,344,841) or Shino (U.S. Patent No. 6,320,326).

As to claim 9, note the discussion of Kanazawa and Yamada above, both Kanazawa and Yamada do not mention a reverse current direction between the conductor and the display electrodes. Moon teaches each of conductors arranged on the plasma display panel having a current running in reverse direction to each other; see figure 9 and column 7, line 49 through column 8, line 27. Shinno's device teaches similar feature of current running in reverse direction applied to each of conductors arranged on the display panel. Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have applied a current in reverse direction to the electrodes of Moon or Shino to the electrodes of Kanazawa as modified by Yamada so as to reduce a current amount into less than 1/2 in comparison to the conventional PDP driving apparatus and reduce an electromagnetic interference ; see column 8, lines 18-27 of Moon.

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chanh Nguyen whose telephone number is (703) 308-6603.

If attempts to reach the examiner by telephone are unsuccessful, the examiner supervisor, Steven Saras can be reached at 305-9720.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist)

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

C. Nguyen
October 15, 2002

CHANH NGUYEN
PRIMARY EXAMINER